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The attached documents are exact copies of the European patent application described on the following page, as originally filed.

Les documents fixés à cette attestation sont conformes à la version initialement déposée de la demande de brevet européen spécifiée à la page suivante.

Patentanmeldung Nr. Patent application No. Demande de brevet n°

02445097.5

**PRIORITY
DOCUMENT**
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Der Präsident des Europäischen Patentamts;
Im Auftrag

For the President of the European Patent Office

Le Président de l'Office européen des brevets
p.o.

R C van Dijk



Anmeldung Nr.:
Application no.: 02445097.5
Demande no:

Anmeldetag:
Date of filing: 12.07.02 /
Date de dépôt:

Anmelder/Applicant(s)/Demandeur(s):

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SUEDE

Bezeichnung der Erfindung/Title of the invention/Titre de l'invention:
(Falls die Bezeichnung der Erfindung nicht angegeben ist, siehe Beschreibung.
If no title is shown please refer to the description.
Si aucun titre n'est indiqué se référer à la description.)

Multifunctional connection pads

In Anspruch genommene Priorität(en) / Priority(ies) claimed /Priorité(s)
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Staat/Tag/Aktenzeichen/State/Date/File no./Pays/Date/Numéro de dépôt:

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filing/Etats contractants désignées lors du dépôt:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

1 **Name of invention**

Multifunctional Connection Pads

2 **Inventor(s)**

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3 **Background**

The Mobile Phone can today be seen as a mature type of product. To just make phone-calls is no longer enough to attract potential buyers. Today it's necessary to add functions. At the same time the type of added functions are changing rapidly making it difficult to rapidly respond to these demands.

4 **State-of-the-art**

When designing/developing new products the set of functions is defined already at the project start and can not easily be changed later on.

5 **Problem**

To add a new function in an on-going project results in major re-design work and delayed product launch.

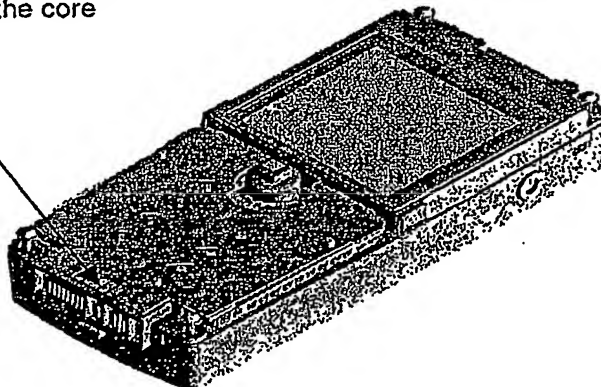
6 **Solution**

i.e. a "stripped" phone

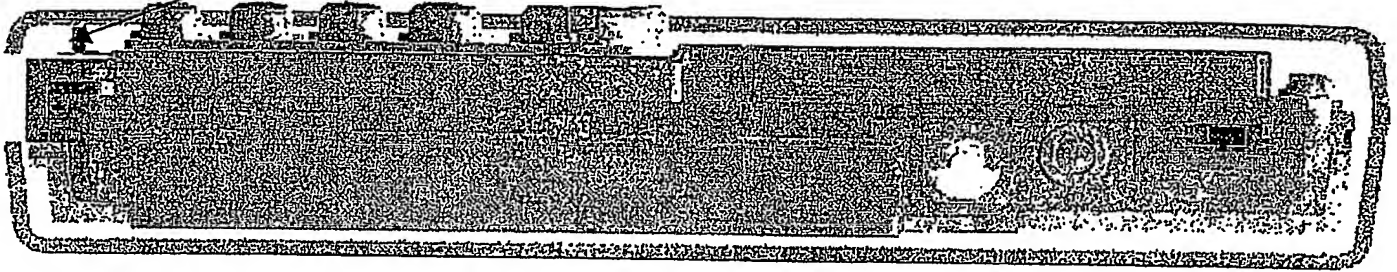
- An array of connection pads is located on a core.
- The pads connect to the outer covers having integrated functions.
- The connection pads are arranged in way that both data and power supply signals can be transferred to the outer covers.
- The pads are positioned on the keyboard PCB.

active covers

Pads for connecting outer covers to the core



Connection to the outer cover



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Merits of Invention

- Today's mobile phones are compact and dense with almost no room for additional connection pads on the main PCB. By using an unused area on the keyboard PCB the outer dimensions of the product can be kept.
- The integrated functions in the outer covers can be developed separately and added in a late stage of the product development.
- It's possible to extend the time that the product is on the market by upgrading it with new functions in the covers and upgraded software.
- The integrated functions can be as simple as a mini touch or as complex as a digital camera module due to the possibility to connector both data and power supply signals.

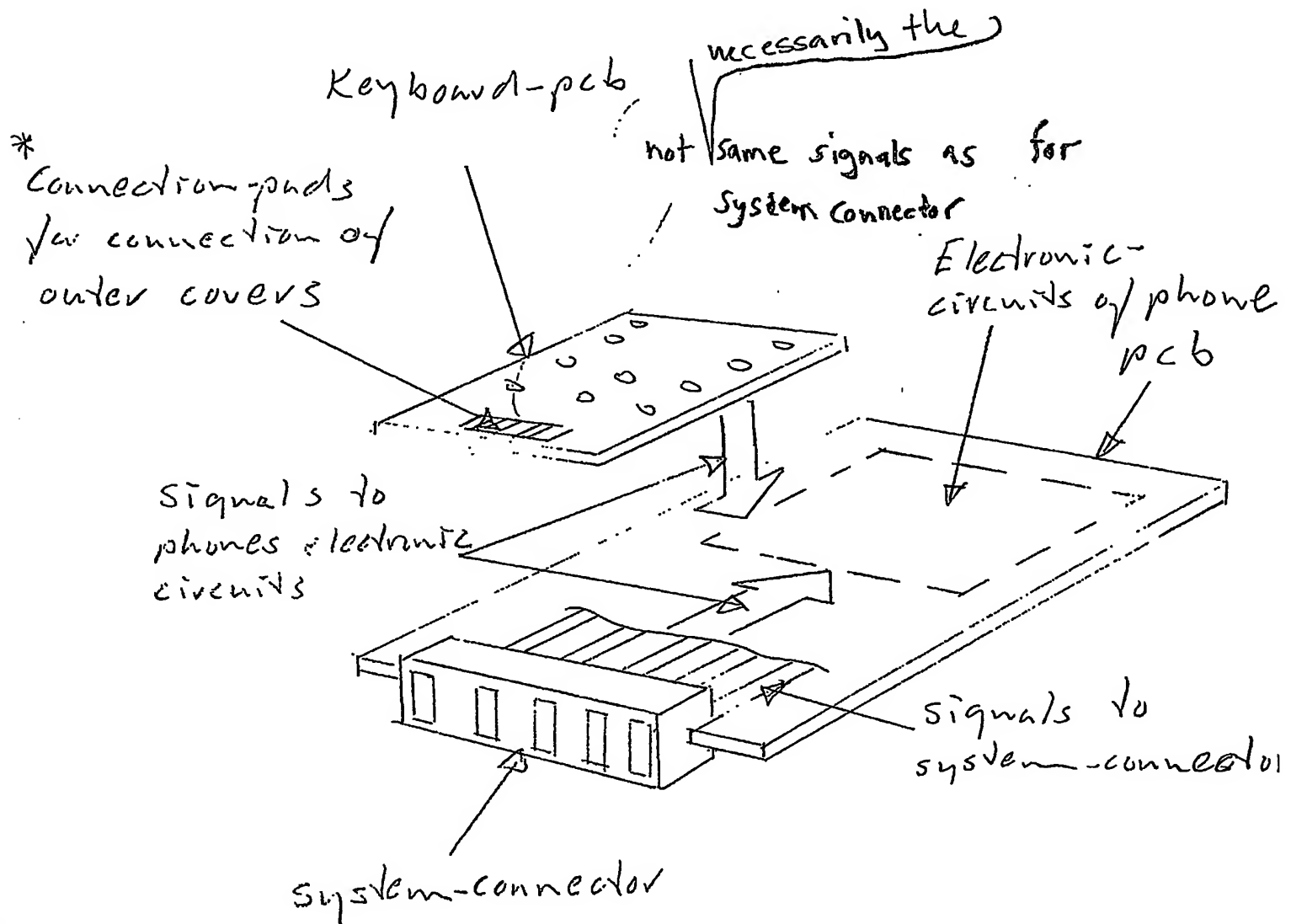
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Claims

1. Communication terminal, including any of the features specified in the foregoing description and/or illustrated in the appended drawings.
- 5 2. Connector arrangement for a communication terminal, including any of the features specified in the foregoing description and/or illustrated in the appended drawings.
- 10 3. Active housing for a communication terminal, including any of the features specified in the foregoing description and/or illustrated in the appended drawings.
- 15 4. Core terminal unit for a communication terminal, including any of the features specified in the foregoing description and/or illustrated in the appended drawings.

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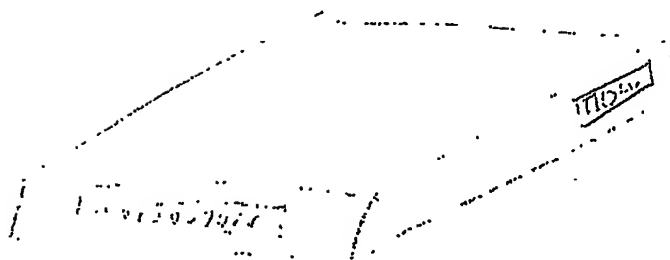
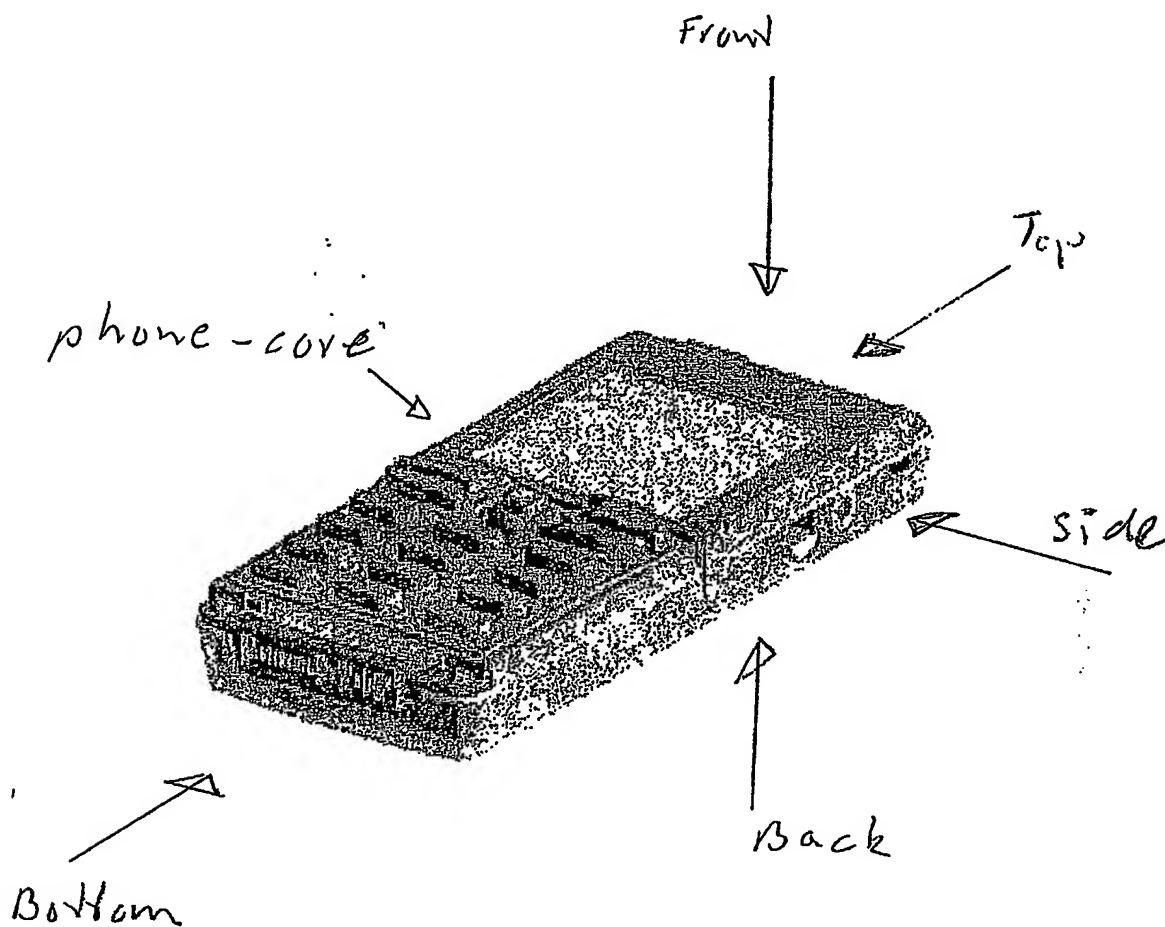
Connection of pads to phones electronic circuits



- * Signals to connection-pads for outer covers can be of any kind and of any number, thereby not occupying same signals as to system-connector.

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All positions of connection pads on cover connecting to outer covers.



3/3

Alternative solutions for connecting
outer covers to phone-cave

